ANCEMENT OF MANAGE

# Advanced Management

MODERN MANAGEMENT

## MANAGEMENT
## PAST - PRESENT - FUTURE

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- Definition of the Requirements for a Good Supervisor
- The Rating of Management by the Use of Data
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FEBRUARY 1952

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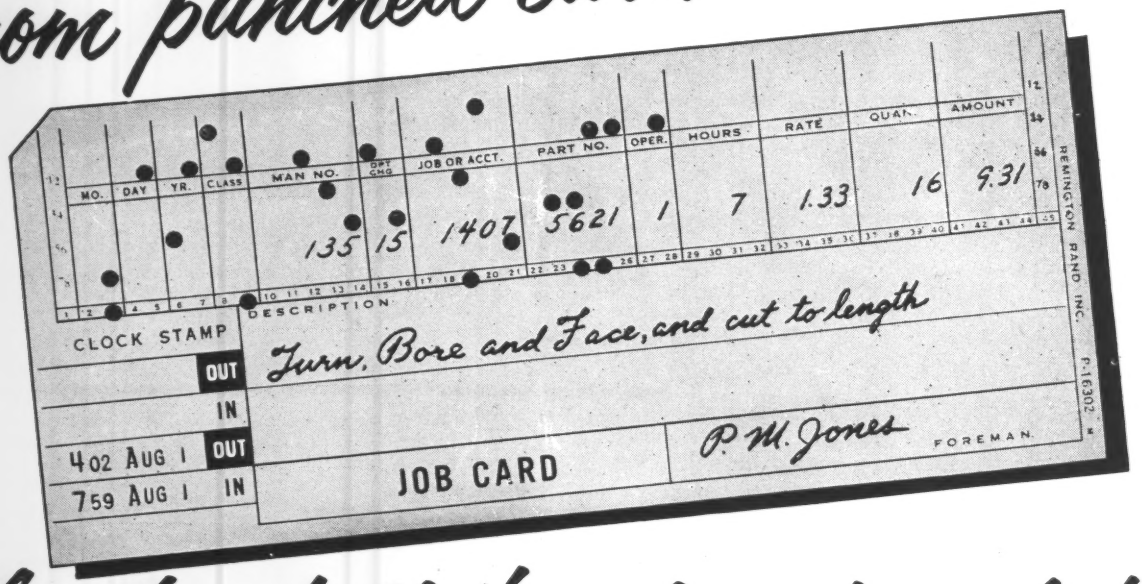
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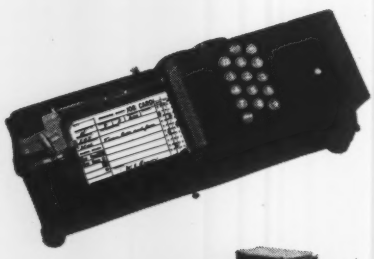

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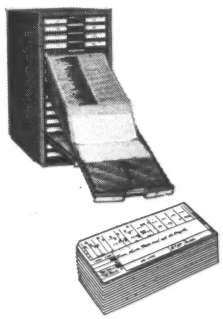

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# THE FRONT LINE SUPERVISOR

By GEORGE R. NORTHRUP
Field Engineer, Monsanto Chemical Co.

***Attention is centered on the supervisor in this article, pointing out ways and means of selection, orientation, and makeup of a good supervisor.***

THE IMPORTANCE of the place of the first-line supervisor in production, industrial management, and in applying human relations is receiving considerable attention in view of the increasing number of labor disputes arising from ineffective industrial relations. In order to strengthen the position of their representative, hereafter referred to as the foreman or supervisor, industrial managements have recently initiated various training programs designed to provide adequate training for such personnel in these particular fields.

Some companies have conducted tests and tabulated results of such programs, but unfortunately the movement in this direction is somewhat new, permitting little correlation of such programs. The matter of supervisory selection has been given much attention with emphasis on development of the supervisor so that he can do a better job.

## OBJECT AND PURPOSE

It is the purpose of this paper to define the requirements for a good supervisor, to suggest certain methods of selecting such a person and orienting him to the management function and to consider methods of training to further develop his managerial capacity. The discussion is based upon the major premise that any program should continuously be subjected to revision.

## SCOPE

Because the foreman is management's contact with the hourly worker, management has certain obligations in selecting a candidate for promotion to a supervisory position. It must make no mistake in its selection for promotion, for to do so could result in the loss of a good worker should he not be able to handle the responsibility. Only through proper orientation of the foreman to the management function, coupled with an intelligent development of the skill required to perform that function can good supervisory relations exist between workers and management.

Management has sometimes failed to realize that it has been "unfair" in certain demands made upon the foreman when production has been lagging or when absenteeism has increased. Perhaps it has failed in its responsibility to the workers themselves by making the first likely candidate selected the foreman; or it may have had no provisions for developing the necessary skills for the supervisory position in the man so selected.

In order to apply the basic principles of sound management it is desirable to make no mistake in selecting the foreman, to give him the "tools" with which to work as his needs increase, and to weave a pattern of effective Human Relations and understanding throughout the complete management program.

## REQUIREMENTS FOR A GOOD SUPERVISOR

Although the requirements for a good foreman or supervisor may vary to some extent depending on the particular industry, to begin with there are three certain basic characteristics that no foreman can afford to be without. In order of their apparent importance, they are —leadership ability, a high degree of judgment in matters pertaining to his position, and an "understanding attitude" in dealings with workers under his supervision.

Leadership ability is reflected through the degree of enthusiasm and teamwork of the people in his department and their producing efficiently and economically. In order to obtain the cooperation of and between his workers, between other foremen and himself, and with higher levels of management, *he must cooperate* with them in their needs. In addition, he must be open to suggestions and ideas and not be biased by his own convictions on certain points. Ability to give as well as to obtain cooperation is one of the prime requisites for a good leader. He should be the type of man who gives *full* credit to the worker presenting ideas and in addition be able to stimulate the workers' thinking along lines for the greatest development of his own individual skills.

If the foreman knows and effectively administers company policies and exercises sound judgment in making decisions the result is promotion of effective industrial relations. Unsound judgment often "breaks" such relations. The foreman must be able to *know* when and to what extent information concerning company policies or expansion of facilities may be disseminated, when and to what extent responsibility can be feasibly distributed, and when to say no or yes when a particular situation in the department develops. These points are all based upon the ability to render sound decisions. On the other hand, if a poor decision has been made on occa-

sions, the foreman should not be penalized, since "we all make mistakes"; but repeated poor decisions may be a warning that he is weak on that particular point and requires additional guidance and development from a higher level of management. All of these factors reflect first the need of the foreman having a good set of values and then carefully weighing all of the pertinent factors and exercising the soundest judgment possible.

## INTEREST IN FELLOW MAN

The prospective supervisor must also have a genuine interest in his fellow worker and wish to help him when personal problems arise — when his wife may for example, require a blood transfusion, the foreman can assist in scouting the plant for potential blood donors, arrange for friends to help out at home when the workers' wife returns from the hospital, etc. This attitude helps in promoting good all-round relations and assures the worker that management *really has an interest in him* and is not trying to exploit him. His personal attributes are a means of influencing the worker to "*want* to do the work," and to a large extent can determine his progress to higher levels of supervision thru increased efficiency and production in his department. Because the foreman was at one time a worker himself, he must not be one to lose sight of the "*little*" *problems* (which are the danger signals) confronting the worker; but he must be ever observant to anticipate them when they develop. For example, if he can intelligently appraise the relations between various workers in the department and anticipate the trouble before it develops, much internal strife can be eliminated.

Mr. Boulware, Vice President of the General Electric Company, recently pointed out how certain plant managers were often "put on the spot" when the workers went on strike in one plant and not in other plants of the same company. There is a likelihood the cause might have been the result of these in the *lower levels* of supervision ignoring the "danger signals" and not anticipating situations causing the strike before they developed.

In many plants, the rapid turn-over, increase in absenteeism, dissatisfaction of the worker, and strained employee relations may be attributed to the *lack* of these basic characteristics in those administering the management policies of the company in the lower levels of supervision.

## ADDITIONAL REQUIREMENTS

Other basic requirements, not quite as important as the three mentioned above consist of: a desirable personality, initiative, to have ideas (often indicated by suggestion box records) and be able to convey such ideas to others and to have an intense interest in management objectives.

Personality of an individual has once been defined as the "impression which an individual makes on the people around him". In addition, it should be considered developmental since it is subject to change from day to day and year to year depending upon certain factors —ill health, emotional stress, worry, happiness, excellent health, robust activity, etc. Many of us have heard expressions such as "Don't get in Joe's way today, he is in a bad mood". This exemplifies a typical situation of a person having usually a good disposition and personality with extraneous factors, mentioned above, affecting it.

## PERSONALITY

The personality of the foreman is of utmost importance. Very much as that of the corporate public relations man, the foreman should really be considered as public relations man except that his public consists of workers in his department. His personality reflects successful or unsuccessful direction of such relations and their impact on production, efficiency, worker dissatisfaction, and absenteeism. During the latter part of September 1950, the author with a view to evaluating a certain area of industrial relations program made a visit to a large corporation having plants all over the world. When the personnel manager was asked how the personality of an employee could be evaluated, the reply was that it "stuck out all over him and it is difficult to evaluate in definite terms". Although it may be a somewhat intangible asset, the foreman should have the personality much like this example, to make a good impression on all people he is in contact with. Both on and off the job, he should generate a feeling of mutual good will on all sides.

The virtue of character is somewhat like the application of personality except that it is what character the person *really* has in a moral and ethical sense of responsibility to himself. Evaluation of this relation provides a basis for others to "grade" a person's personality since basic traits of character are developed from one's environment. Because effective management relies on certain basic factors in the make-up of its supervisors, the character of the foreman becomes an increasing important parameter for selection.

## INTELLIGENCE

Intelligence may be defined as the power to understand and learn, or the ability to meet a situation and to exercise good judgment when required. The latter is especially true in view of the recent impact of Human Relations in industrial personnel programs and the evaluation of the supervisor's position affecting such programs. Although intelligence tests indicate to a certain extent the person's mental "capacity", they by no means predict successful understanding. Moreover, studies have indicated that an honor key does not alone unlock the door to good personality, but predicts a higher rate of successfully meeting the challenges of personal contacts. However, the potential foreman or supervisor need not (and undoubtedly does not) hold a Phi Beta Kappa key, but must demonstrate or be able to learn to demonstrate a keen ability and intelligence in handling the Human Relations aspects of a supervisory position.

Aptitude tests frequently provide a means of evaluating worker's as well as supervisor's particular skill or dexterity in certain phases of work and in addition they often furnish a basis of potential promotion to high levels of supervision. Although it is desirable for the foreman or supervisor to know *how* to perform every job in his department, it is *not* necessary for him to have a great amount of skill for any one job. A general knowledge of the relation of the work in the particular department to that of other departments would be the useful tool.

The initiative of the foreman and his interest in doing *just a little more* than

that normally required for his job is a factor that should be in the makeup of every level of supervision. A knack of "getting things done" in spite of obstacles and disappointments that may arise goes far in broadening the base for good supervisory traits of the potential foreman.

Many supervisors are lacking the ability to convey ideas of their own to both management and workers, and in addition are unable to effect good communication between these two. One can readily see that existence of this condition in any degree is not conducive to good employee-management relations. Although it is hardly necessary for the foreman to speak or write as fluently as a famous orator or writer, he must still be able to present certain information clearly and concisely to put certain desired points across.

It is taken for granted that any potential supervisor has a keen interest in management objectives, programs, and ideas as well as pride in the company of his employ, be it little or big. This is exemplified by his interest in company products and their applications, his questions regarding the relation of the company to competitors, new products being developed, and inquiry about the relation of the work of his department to the whole organization and may be a measuring card for determining the extent of his interest.

Summary—The array of the requirements for a good supervisor or foreman as presented above is intended to be that for the ideal case. In actual practice, no one man could possess all these desired characteristics, nor could he develop all of them in sufficient amount as outlined. With this conclusion, a company must assign its own scale of value to each of the characteristics evaluated and determine its own policy in weighing the results.

## SELECTION

The most important part of any training program is not so much what the content of the program is, but *who* shall be selected for training. Usually the first factor in selecting the potential foreman is through that of the existing foreman rating the candidate. He is able to evaluate the qualities of the candidate for the foreman job with respect to the requirements previously outlined. Moreover, he has more than likely chosen a particular worker in the department to assist him at times on certain phases of his work, or the worker has possibly "filled in" for him when he was off sick or on his vacation. Although this man, the unofficial assistant foreman, is the logical replacement, we must consider on what basis the foreman selected him to assist him in his work.

**Figure 1**

SUGGESTED
SUPERVISOR'S RATING SCHEDULE

Rating Scale: A—Excellent
B—Good
C—Average
D—Poor

Rating for .....
New Position .....
Present Position .....
Date of Rating .....

*Instructions*: Indicate to the best of your ability the characteristic quality indicated for the particular rating point using the above values. The judgment should be based on consistent observation and your reaction and not on a particular incident. Use the space provided making comments both favorable and unfavorable in order to clarify or supplement your rating. Please do not use the opinions of others, and if undecided on rating the particular quality, do not assign any value to it.

Rating Point

Quality
A, B, C, D

1. *Leadership* — obtains cooperation, teamwork, needs little supervision, dependable, good planning.
2. *Judgment*—Good logical reasoning, makes right decision, has good set of values, discards unimportant issues, analytic keenness.
3. *Cooperation*—Refuses to cooperate, does not question orders of supervisors, directs work without friction, too cooperative, instills cooperative spirit.
4. *Knowledge* — Has adequate knowledge of methods and processes, weakness in training or experience, general or specific knowledge, needs additional knowledge.
5. *Personality* — Enthusiastic, tactless, promotes good feeling, a bluffer, understands fellow workers, courteous, good judge of people, alert, fair or unfair.
6. *Intelligence*—Mentally alert, understands and interprets factor causing new situations, quick to evaluate or slow, open-minded, slow thinker, good mental capacity.
7. *Initiative*—Develops good individual ideas and suggestions, needs help when trouble occurs, needs no help in problems, too easy going.
8. *Observant*—Sees causes of trouble arising before they are problems, develops ability of workers which is evident, notices new developments in his job.

Make comments on reverse side concerning any of these points. Also indicate your recommendation for improvement or training necessary for the candidate.

Rated by .....
Title .....
Department .....

## FACTUAL BASES

Undoubtedly, the candidate had certain of the desired characteristics to begin with—a good worker, leadership ability, dependability, good judgment, and a pleasing personality. As the foreman was able to ascertain these features, he could readily see the potential supervisory ability in this worker. Certain factual bases for his selection may have been apparent—suggestions by the man to his supervisor, his cooperation with all and the way he got along with his fellow workers, the way he seemed to "command" respect from them, and more important, the fact that he took advantage of the company programs for self-improvement. The recommendations of the foreman may be made by means of a "Supervisors' Rating Schedule" of the type suggested and contained in Figure 1. This illustration is intended to illustrate a likely means of selecting the potential foreman.

A second factor in selection may be factual evidence considered in terms of the potential foreman's Personal History Record Summary, a suggested type shown in Figure 2. There have been various types of tests in addition which have been used for selecting supervisors and they indicate some of the potential leadership ability. Such supervisory tests essentially provide some measure of determining whether good or bad judgment would be exercised by the potential foreman in certain situations. In addition, they show what his attitudes are toward certain phases of managerial policies. They effectively supplement the various points of the Rating Schedule previously referred to. However, such tests are rarely useful as an exclusive prediction of the success or failure of the potential supervisor and indicate a "negative" prediction. Again if the worker has on occasion performed for even a short period of time the duties of a supervisor, such information is usually contained in the personnel records along with pertinent remarks concerning his disposal of such responsibility.

The third logical factor in selection, which is no doubt the most important, could be a summary report of some kind. A "Conference Data Report" of the type suggested and shown in Figure 3 could effectively correlate the two basic factors discussed and yet contain a summary of various comments concerning the candidate—from the Rating Schedule, from the Personal History Record Summary, and from interviewers in conference discussions. In addition, it could be used to tabulate and summarize the phases of development of the particular foreman both during the various training periods and as he progresses to higher and higher levels of supervision.

## ORIENTATION AND TRAINING

As Mr. Boulware of the General Electric Company remarked, "Management has a responsibility to the worker—to treat him fairly and not require him to suffer indignities". This fact is particularly true of the foreman since he is in the "crossfire" in applying the wishes of management and yet must fairly consider many of the demands of the workers in his department. For this reason, it is necessary for management to orient the new foreman in his new assignment. "He must need, want and enjoy the privilege of participating in the training program". There must be a definite program of indoctrination and basic training followed by continued development of the foreman enabling him to progress in the company. Through the resulting increased productivity, efficiency, etc., he can to some extent repay the money which management has invested in training him.

The orientation phase should consist of either one or a combination of these types of programs — assignment as an assistant foreman for a specified period of time, participation in a foreman rotational plan much like that used in training executive personnel, or a combination of either of these with a classroom-work plan. The latter of these may prove to be most useful since it would provide a good means of rapidly educating the potential foreman to the responsibilities and demands of the management function. The choice of any program, of course, depends upon the particular requirements of the industry considered.

**Figure 2**

PERSONAL HISTORY RECORD SUMMARY

1. Physical Characteristics—health, age, defects, etc.
2. Experience—positions held in various companies.
3. Education—type and extent; subjects of interest.
4. Positions held in the company; promotions or transfers.
5. Results of tests given him when first employed.
6. Results of tests given after initial tests.
7. Summary of data provided by the candidate in any questionnaires filled out by him for potential promotion.
8. Tendencies for self-development — night school, training programs, or periodicals or types of books borrowed from the company library; membership in trade societies.
9. Suggestions or ideas presented in suggestion box or during conferences or seminars.
10. The goal or level of supervision that he ultimately expects to attain in the company.
11. Results of discussions or comments made by him during interviews and those of the interviewer.

Coupled with the orientation phase and supplementing it should be a training program to give such "leaders" the *tools* necessary for them to effectively perform their duties, to develop them through management-worker relationships, to maintain good channels of communication, and to bring the regular foreman up-to-date on the latest labor issues and management objectives.

Through extensive study, the author has arrived at the conclusion that the majority of disputes or grievances have arisen through dissatisfaction of the worker due to wage inequities, working conditions, poor training, poor supervisors, and ineffective personnel policies and their administration. The latter is of particular importance. Top management *may think* their programs are being effectively administered (and they may be), but often lower levels of supervision may misinterpret them (through disagreement or misunderstanding) and carry out ideas that may be detrimental to the policies and interest of the company.

## GOALS TO OBTAIN

A good training program may have the following goals—to make more efficient supervisors, to provide a better understanding of Human Relations and good supervision, to lay the basis for a "uniform interpretation" of company policies, to give the supervisor responsibility and make him *aware* of the problems of top management, and to encourage him to self-development and growth.

## BASIC COURSES

Courses in the training program could cover such things as labor contract and labor legislation with qualified persons participating—the company lawyer, the Industrial Relations Chairman, and the Personnel Director. The reduction of grievances through understanding of the how and why of the contract on the part of the foreman fosters good employee relations since the program could be revised periodically to include new contracts and bring already trained foremen up-to-date on the newest developments. As in all the courses in the training program, this course could be devised to test the knowledge of the participating foremen on various phases of the contract on which they are likely to encounter trouble. Use of true-false tests or multiple-choice tests would provide an easy and yet effective way to test knowledge of the foremen. Test grades from any of the training courses should be kept confidential, thus providing an incentive for the foremen to "bone up" on the points they have been weak on. Tests given could be repeated so as to cover all the foremen in the company.

Other courses that could be used as a base from which to start are those covering such things as the relevant wage determination methods, time and motion analyses, philosophy behind wage and salary administration, economic aspects of management affecting the worker, and wage seniority determinations. The method of developing the foreman's technique in giving instructions thoroughly understandable to the worker may be planned in relation to the need existing. Class discussion of such techniques would provide a means for the foremen to develop their ability to "get the man to *want* to do the work" rather than through the arbitrary order of a supervisor. This application of Human Relations is of utmost importance in this particular phase of supervision.

Education of the new supervisor regarding company policies is of great importance also, for smooth operation of his department depends on it. Many companies have neglected this phase of training, but studies made have indi-

cated the workers' *lack* of respect for the foreman when he repeatedly cannot answer questions on particular points of such policies when asked by his workers. In addition to training of the supervisor in such areas, the *first* time a situation of this type arises, the foreman should say, for example, "Well, I don't know about that particular aspect, Joe. Let's go over and see—and find out *together*". The fact that he couldn't answer a question on company policies or any other aspect of the work should be a signal for him to "brush up" on such points.

The responsibility of the foreman in inducting the new worker cannot be overlooked. The emphasis should be placed on making him feel completely at home in his new job since first impressions received by the new men often reflect in his later work. Because the basic desire of the worker is money and job security, the basis of building production and efficiency incentives in the worker should be included as a basic course along with job evaluation and a salary administration.

## SUPPLEMENTAL COURSES

Courses described above as well as many of those following could be illustrated by movies and visual means, by case studies, and by actual inspection trips throughout the plant. Although the above courses may be considered a base from which to start, after the foreman assimilates such training, additional development in some of the following subjects may be required in a particular industry.

1. Production control and planning; waste control; efficiency measures
2. Rating and grading of employees; training and developing understudies
3. Absenteeism, labor turnover, and employee counselling
4. Purchasing, quality control, payroll administration, cost control
5. Supervising the woman worker
6. Human relations; securing cooperation psychology of personality, correcting the worker, giving instructions
7. Safety and good housekeeping
8. Leadership and self-improvement for advancement
9. Selecting employees
10. Product design, sale and distribution of products
11. Economics based on the "money theory"
12. Job training and work simplification

It has once been said, "The only man who can build a better foreman is the foreman himself; but there are a lot of ways to help him."

The Glenn L. Martin Company, using a "Self-Development Inventory Check-List" found that it has provided a motivation for the new foreman as well as the older foremen in self-improvement. Enrollment in various University night school classes rose 400% in the fall semester of 1949 following the use by the foremen of their check list. During the weeks that followed, more questions than ever before were asked during the supervisory conferences, such questions pertaining to applications of supervisory working problems. This example provides ample evidence of the trend of the foremen toward self-development and stimulation of interest in doing their job more effectively.

## ADVANCEMENT

Recognizing that there is leadership talent in the organization and because each foreman's or supervisor's ultimate goal may be in various levels of management, a program of up-grading is desirable. A definite need for replacement of trained men all the way up to the President of the company is evident. When there is promotion of men to higher levels of supervision, transfer of foremen to other departments, retirement of key men, or decease of leaders, and if there is no definite plan for development of men to take their places, a disruption of operations may result. Moreover, selection of any one replacement on a hit-or-miss basis may prove worse than no replacement at all.

Especially for these reasons, management development programs are necessary—to build up reserves of capable leaders at various levels of management and to develop them with a view to later promotion to higher levels of supervision. The first step in this direction could be a compilation of names of at least two potential replacements for each supervisory position, selected by existing leaders based upon the requirements previously outlined.

By means of such evaluations, each foreman or member of management can determine the steps which their potential replacements should take to so improve themselves. The next procedure is to make conveniently available the means of self improvement. This may be accomplished through training courses previously discussed, followed by lectures or conferences to further promote effective management relations.

**FIGURE 3**
***Suggested Conference Data Report***

Name .....
Present Position .....
Date.....

I. *Data From Personal History Record Summary*
   1. Age
   2. Leadership experience, if any
   3. Education along lines of Management
   4. Ideas—suggestion box and others
   5. His goal in the company
   6. Results of tests given him

II. *Supervisor's Rating Schedule*
   1. What points require additional development?
   2. Recommendations and extent of recommended responsibility, if any
   3. Does he fulfill the basic requirements for a good supervisor?

III. *Conferences and Interviews*
   1. What are pertinent remarks that the candidate has made?
   2. What are the recommendations on factors such as additional training exhibited interest in the company?
   3. Miscellaneous comments—list below

## CONFERENCES

The weekly or monthly conference method has proved successful in many industries and has gone far in improving efficiency, industrial relations, and generally led to more prosperous management relations. The value of the type of "training" cannot be overlooked — it develops the ability of the men in various levels of management to present their ideas clearly and concisely; it increases communication both "up" and "down"; it leads to the solution of many labor problems through group analysis and understanding; it provides a basis for developing and improving management objectives; it provides a means of informing management personnel concerning features of new labor contracts being negotiated, joint decisions on vacations, seniority, etc.; it encourages suggestions by participants thus improving the system and programs of the company; and most important, it stimulates the foreman to create, to make decisions, and to discover and develop ideas.

Participation in such programs should be made by specialists in various fields in the company—the treasurer, the company lawyer, industrial relations manager, personnel manager, and other executive officers, when possible. Nothing is more conducive to promoting good relations than the President of the company, for example, indicating a personal desire to help solve some of the problems arising, and participating in such conferences. When top management participates with lower levels of management, together they can arrive at a much better solution than by other methods.

The conference methods may also be used to improve the leader's ability to lead such discussions. Certain check points of the type contained in the "Conference Check Points" in Figure 4 may provide a criterion for such evaluation by the top management executive having the guiding hand in such conferences. A copy of this check list could be given the leader of the discussion so that he could take steps to eliminate any weak points.

Many companies have gone to great limits to develop their supervisors and improve relations between management and foremen. In many instances, management has furnished free membership in many of the national foremen's organizations and has frequently defrayed expenses when foremen attend national or regional conventions.

**Figure 4**

CONFERENCE CHECK LIST

Name .....

Date of Conference.....

1. He keeps control of the discussion—directs it back to the subject when it wanders off.
2. He attempts to give all the answers himself; or does he route the discussion around to various participants?
3. Promotes good group sportsmanship toward all speakers; doesn't criticize anyone for speaking freely.
4. He stimulates participation of usually timid members of the group; uses questions on why, when, where, etc.
5. Does not allow the conference to drag out too long.
6. The topics were adequately covered, or too much time spent on certain ones.
7. What topics should have been emphasized and were they presented in good logical sequence?
8. What improvement of his presentation and conducting of the discussion is required?

*Comments*

Two important points must be reaffirmed. First, top management often *thinks* their programs are being effectively carried out when actually the lower levels of supervision may be carrying out entirely different programs. Second, the first-line supervisor should be ever alert to watch for the "signals" which are the basis for beginning of many labor disputes and take immediate steps to eliminate them.

Management staffs that are pioneering in the field of industrial management discussed in this paper are beginning to see the results of their efforts paying off in increased efficiency and production, less turnover of personnel and fewer labor disputes in their plants. It has been only since they have recognized the increasing importance of the position of the first-line supervisor that this has become possible.

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# MANAGEMENT BOOKS *Recently Received*

***Please order books directly from publishers.***

*Public Administration — Readings and Documents*, by FELIX A. NIGRO, published by Rinehart & Company, Inc., 232 Madison Ave., New York 16, N. Y. 493 pages, $4.00.

*Industrial Productivity* — published by the Industrial Relations Research Association, Park and University, Temp. 3, Room 5, Madison 5, Wisconsin. 224 pages, $3.00.

*Manufacturing Processes* — Third Edition — by MYRON L. BEGEMAN, published by John Wiley & Sons, Inc., 440 Fourth Ave., New York 16, N. Y. 608 pages, $6.00.

*Production Control*, by PAUL D. O'DONNELL, published by Prentice-Hall, Inc., 70 Fifth Ave., New York 11, N. Y. 304 pages, $6.35.

*Big Business as the People See It*, by BURTON R. FISHER and STEPHEN B. WITHEY, published by the Survey Research Center, Institute for Social Research, University of Michigan. 200 pages.

*The Firestone Story*, by ALFRED LIEF, published by the Whittlesey House of McGraw-Hill Book Co., 330 W. 42nd St., New York 18, N. Y. 437 pages, $4.50.

*Human Relations in Administration — The Sociology of Organization*, by ROBERT DUBIN, published by Prentice-Hall, Inc., 70 Fifth Ave., New York 11, N. Y. 573 pages, $7.35.

*Quality Control and Industrial Statistics*, by ACHESON J. DUNCAN, PH.D., published by Richard D. Irwin, Inc., 1818 Ridge Road, Homewood, Ill. 663 pages, $9.00.

*American Capitalism*, by JOHN K. GALBRAITH, published by Houghton Mifflin Co., 2 Park St., Boston, Mass. 217 pages, $3.00.

*1001 Ways to Improve Your Conversation and Speeches*, by HERBERT V. PROCHNOW, published by Harper & Brothers, 49 E. 33rd St., New York 16. 341 pages, $3.95.

# An Industrial and Mercantile Management Quality Rating Plan

By WILLARD R. GINDER

Charles S. Rockey & Co.
Certified Public Accountants, Philadelphia, Pa.

***The evaluation of an enterprise rests on the quality of the management of that enterprise.***

THE QUALITY OF THE management of a business enterprise is of interest and importance to everyone who has or contemplates having a relatively substantial interest or investment in it. It is one of the most important elements which must be considered in evaluating an enterprise, and one which is itself difficult to evaluate or rate.

The methods presented herein pertain to the rating of managements by use of data usually found in published annual reports and in investment or financial manuals and guides. Used alone, they are not intended to apply to the rating of an enterprise as a whole.

Should an acceptable plan of this character be adopted, a relatively fair rating could be given annually to the management of nearly every industrial or mercantile business enterprise. Such a rating might be of great value to any interested person who does not have the means of analyzing and evaluating company financial statements and histories.

Jackson Martindell, in The Scientific Appraisal of Management,[1] suggests the following evaluation table:

| Factor | Maximum Points |
|---|---|
| Economic function | 400 |
| Corporate structure | 500 |
| Health of earnings growth | 600 |
| Fairness to stockholders | 700 |
| Research and development | 700 |
| Directorate analysis | 900 |
| Fiscal policies | 1,100 |
| Production efficiency | 1,300 |
| Sales vigor | 1,400 |
| Executive valuation | 2,400 |
| | 10,000 |

## ECONOMIC FUNCTION FACTOR

The economic function factor seems to pertain more to the nature of the business or products than to management. For the purpose of this discussion it will not be considered a management rating factor because we are concerned with the results produced by a management as compared with standards for the same kind of business. The directorate analysis and executive evaluation factors are difficult to determine without considerable study and training, are not susceptible of comparison with standards, and might often reflect expectation or potential rather than performance. Therefore, economic function and executive valuation are eliminated as separate factors in this discussion, and will be evaluated indirectly by the methods proposed herein upon the basis of results produced. An attempt will be made to rate the remaining factors by consideration of factual data.

The suggested relative *basic* weights to be given the factors are as follows:

| | |
|---|---|
| Corporate structure | 1,000 |
| Earnings and growth | 1,000 |
| Fairness to stockholders | 1,000 |
| Research and development | 1,100 |
| Fiscal policies | 1,700 |
| Production or merchandising efficiency | 2,000 |
| Sales vigor | 2,200 |
| | 10,000 |

Each factor is composed of several elements, most of which are ordinary balance sheet and operating ratios. Each element is weighted by comparison with a standard, and an average weight of the elements is multiplied by the basic weight of the factor to obtain its rated weight.

## RATING OF MANAGEMENT

The sum of the rated weights of the factors divided by the sum of their basic weights is the rating of the management, expressed as a percentage of standard. It should be noted that a rating of 100% denotes excellence but not perfection. For that reason, a rating should be expressed always as "——% of standard."

The weight of each element is expressed as a percentage of standard. For example: element X is the ratio of current assets to current liabilities; the actual ratio is 2.5, and the standard is 3.0; the weight of the element is 2.5 + 3.0 or 83.3%. In some instances, because of peculiar circumstances, an element might have an inordinately high or low weight which would unduly affect the rated weight of the factor. It is suggested, therefore, that no element be weighted at more than 200% or less than zero unless specifically provided otherwise in the plan.

Standards for the various elements should be determined each year for several tangible net worth brackets of each line of business. Actual upper quartile averages might be adopted as standard. The standards used herein to illustrate the methods of weighting the elements and computing the rated weight of each factor are arbitrary and have only illustrative significance.

## CORPORATE STRUCTURE

This factor has been given relatively heavy weight as compared with Mr. Martindell's table, because every aspect of the balance sheet should reflect quality of management. Although a new management might not be responsible immediately for the more permanent

(1) 1950, Harper & Brothers

balance sheet ratios, it should be held responsible for them within a reasonable length of time after it takes office. It is suggested that this factor be omitted for the first year of a new management of an old enterprise, and be then limited to one-half weight for the second and third years. Omission or limitation of weight of a factor should be accomplished as follows:

| | *Basic Weight* | *Rated Weight* |
|---|---|---|
| Full weight: | | |
| Corporate structure ..... | 1,000 | 700 |
| All other factors ..... | 9,000 | 8,000 |
| Total ..... | 10,000 | 8,700 |
| Management rating 87% | | |
| Omission: | | |
| Corporate structure ..... | 0 | 0 |
| All other factors ..... | 9,000 | 8,000 |
| Total ..... | 9,000 | 8,000 |
| Management rating 8,000 + 9,000 or 88.89% | | |
| Half weight: | | |
| Corporate structure ..... | 500 | 350 |
| All other factors ..... | 9,000 | 8,000 |
| Total ..... | 9,500 | 8,350 |
| Management rating 8,350 + 9,500 or 87.89% | | |

The elements composing this factor are ratios of:

a. Tangible net worth to fixed assets.
b. Tangible net worth to long term liabilities.
c. Tangible net worth to total liabilities.
d. Tangible net worth to total tangible assets.
e. Total tangible assets to fixed assets.
f. Fixed assets to long term liabilities.
g. Common stock and surplus to preferred stock.
h. Preferred stock to long term liabilities.

## RATED WEIGHT

These elements are weighted and the rated weight of the factor is computed as shown in the following example:

| Element | A Actual | B Standard | | Weight A/B |
|---|---|---|---|---|
| a | 2.00 | 2.45 | 1 | 81.6% |
| b | 1.75 | 4.90 | ½ | 35.7 |
| c | .875 | 1.88 | 1 | 46.5 |
| d | .47 | .65 | 1 | 72.3 |
| e | 4.28 | 3.75 | 1 | 114.1 |
| f | .875 | 2.00 | ½ | 43.8 |
| g | 1.33 | 2.26 | 1 | 58.9 |
| h | .75 | 1.50 | ½ | 50.0 |
| | | | 6.5 | ) 502.9 |
| Average | | | | 77.0% |
| Basic weight | | | | 1,000 |
| Rated weight | | | | 770 |

# NOTES BY THE AUTHOR

**A short time ago, several writings on the rating of industrial management came to my attention, and it occurred to me that the ideas expressed in them might be combined with statistical data to rate the quality of the management of companies on a uniform basis. I then combined the ideas and statistics, and evolved the plan described in this article.**

**I realize that some of the suggested procedures might be deemed too theoretical or arbitrary, but I have neither the time nor facilities to conduct the surveys and studies upon which improvements might be based. It is my thought that constructive criticisms by those interested in the subject might result in the development of a similar plan that would be generally acceptable.**

If the standard includes long term liabilities but the enterprise has none, elements b, f and h should be weighted at minus 15%. This will enable those elements to be used, and will prevent failure to make profitable use of borrowed capital from being rewarded. This situation is illustrated in the following example:

| Element | A Actual | B Standard | | Weight A/B |
|---|---|---|---|---|
| a | 3.14 | 2.45 | 1 | 128.7% |
| b | Inf. | 4.90 | ½ | (15.0) |
| c | 2.75 | 1.88 | 1 | 146.3 |
| d | .73 | .65 | 1 | 112.3 |
| e | 4.28 | 3.75 | 1 | 114.1 |
| f | Inf. | 2.00 | ½ | (15.0) |
| g | 1.00 | 2.26 | 1 | 44.2 |
| h | Inf. | 1.50 | ½ | (15.0) |
| | | | 6.5 | ) 500.6 |
| Average | | | | 77.0% |
| Basic weight | | | | 1,000 |
| Rated weight | | | | 770 |

## NOT TOO MUCH PENALTY

If the enterprise has long term liabilities but the standard has none, elements b, f and h should be weighted at 25% so that unorthodox use of borrowed capital would result in some but not too much penalty. This situation is illlustrated as follows:

| Element | A Actual | B Standard | | Weight A/B |
|---|---|---|---|---|
| a | 2.00 | 2.95 | 1 | 67.8% |
| b | 1.75 | Inf. | ½ | 25.0 |
| c | .875 | 3.68 | 1 | 23.8 |
| d | .47 | .79 | 1 | 59.5 |
| e | 4.28 | 3.75 | 1 | 114.1 |
| f | .875 | Inf. | ½ | 25.0 |
| g | 1.33 | 1.36 | 1 | 97.8 |
| h | .75 | Inf. | ½ | 25.0 |
| | | | 6.5 | ) 438.0 |
| Average | | | | 67.0% |
| Basic weight | | | | 1,000 |
| Rated weight | | | | 670 |

## MAYBE MODIFICATION

Research and experience might indicate that the suggested minus 15% and plus 25% weights of elements b, f and h should be modified.

Finally, if neither the enterprise nor the standard has long term liabilities, elements b, f and h should be deemed inapplicable and the result would be as follows:

| Element | A Actual | B Standard | | Weight A/B |
|---|---|---|---|---|
| a | 3.14 | 2.95 | 1 | 93.9% |
| b | Inf. | Inf. | 0 | Inapp. |
| c | 2.75 | 3.68 | 1 | 74.7 |
| d | .73 | .79 | 1 | 92.4 |
| e | 4.28 | 3.75 | 1 | 114.1 |
| f | Inf. | Inf. | 0 | Inapp. |
| g | 1.00 | 1.36 | 1 | 73.6 |
| h | Inf. | Inf. | 0 | Inapp. |
| | | | 5 | ) 448.7 |
| Average | | | | 90.0% |
| Basic weight | | | | 1,000 |
| Rated weight | | | | 900 |

## EARNINGS AND GROWTH

The elements composing this factor are ratios of:

a. Net profit to net sales.
b. Net profit to tangible net worth.
c. Net profit to total tangible assets.
d. Average net profit of last five years to that of last ten years.
e. Net profit of last year to average of last five years.
f. Net profit to working capital.

These elements are weighted and the rated weight of the factor is computed as shown in the following example:

| Element | A Actual | B Standard | | Weight A/B |
|---|---|---|---|---|
| a | .0873 | .0873 | 1 | 100.0% |
| b | .2074 | .1959 | 1 | 105.9 |
| c | .1280 | .1280 | 1 | 100.0 |
| d | 2.0000 | 1.5 | 1 | 133.3 |
| e | 1.25 | 1.3 | 1 | 96.2 |
| f | .2667 | .3000 | 1 | 88.9 |
| | | | 6 | ) 624.3 |
| Average | | | | 104.0% |
| Basic weight | | | | 1,000 |
| Rated weight | | | | 1,040 |

In the cases of a young enterprise or new management of an old enterprise, element d and e should be omitted or modified to suit the circumstances. For example, if the total tenure is only six years, d would be three to six years and e would be one to an average of three years.

## FAIRNESS TO STOCKHOLDERS

The elements comprising this factor consist of the relationships of dividends to profits and the regularity of dividends. They are the following ratios:

a. Common dividend of last year to net profit of preceding year less preferred dividend.
b. Common dividend of last year to net profit of same year less preferred dividend.
c. Common dividends of last five years to net profits of same period less preferred dividends.
d. Common dividends of last ten years to net profits of same period less preferred dividends.
e. Average dividends per share of three lowest years in last ten to average per share for last ten years.

Should an enterprise be expanding rapidly and re-investing all of its earnings, the rated weight of this factor might be zero. Should this condition or one approaching it exist, the management should be given ratings both with and without this factor, accompanied by a brief explanation. The factor would be eliminated by the method illustrated in the discussion of the Corporate Structure factor. Then, an individual could be guided by whichever rating corresponds to his attitude toward the policy being followed and by the affect of that policy upon the nature of his interest in the enterprise.

In the case of a young enterprise or new management of an old enterprise, elements c, d, and e should be omitted or modified to suit the circumstances. For example, if the total tenure is only six years, c would be three years, d would be six years and e would be two and six years.

Management should be penalized rather than rewarded for excessive dividends because they are detrimental to the interests of the stockholders in the long run. To provide for this, the method of weighting each element is as follows: when A-actual is less than B-standard, weight is A/B; when A-actual is more than B-standard, weight is B/A. By this weighting method, when actual is only 60% of standard the weight is 60%, and when actual is 60% above or 160% of standard the weight is only 62.5%. The rated weight of the factor is computed as shown in the following example;

| Element | A Actual | B Standard | | Weight A/B or B/A |
|---|---|---|---|---|
| a | .50 | .60 | 1 | 83.3% |
| b | .80 | .70 | 1 | 87.5 |
| c | .55 | .65 | 1 | 84.6 |
| d | .45 | .45 | 1 | 100.0 |
| e | .60 | .75 | 1 | 80.0 |
| | | | 5 | ) 435.4 |
| Average | | | | 87.0% |
| Basic weight | | | | 1,000 |
| Rated weight | | | | 870 |

## RESEARCH AND DEVELOPMENT

This factor should be evaluated upon the basis of efforts in proportion to means, and of results produced. However, results produced will not be susceptible of evaluation ordinarily by the methods under discussion, and the results should be reflected in the earnings, growth and sales factors. The direct rating of the research and development factor is limited, therefore, to consideration of efforts as reflected by expenditures in proportion to means. Because of the attitude evinced by the Internal Revenue Service, expenditures for research and development might be stated rather conservatively in the financial statements but this would be taken into consideration automatically should upper quartile averages be used for standards. The elements composing this factor are the following ratios:

a. Research and development expenditures to net profit of preceding year.
b. Average research and development expenditures for five preceding years to average profit, before deducting taxes and research and development expense, for the same period.
c. Research and development expenditures to total operating expense, excluding research and development expense, for last year.
d. Same as c for last five years.

The rated weight of the factor is computed as shown in the following example:

| Element | A Actual | B Standard | | Weight A/B |
|---|---|---|---|---|
| a | .05 | .07 | 1 | 71.4% |
| b | .07 | .06 | 1 | 116.7 |
| c | .02 | .025 | 1 | 80.0 |
| d | .03 | .03 | 1 | 100.0 |
| | | | 4 | ) 368.1 |
| Average | | | | 92.0% |
| Basic weight | | | | 1,100 |
| Rated weight | | | | 1,012 |

## FISCAL POLICIES

The fiscal policies of management should be reflected with fair accuracy by balance sheet current ratios, bearing in mind that dividend policy has been rated in the Fairness to Stockholders factor, and that long term fiscal policies have been rated in the Corporate Structure factor. The elements composing this factor are the following ratios:

a. Current assets to current liabilities.
b. Tangible net worth to current liabilities.
c. Net current assets (working capital) to inventory.
d. Inventory to current liabilities.
e. Working capital to long term liabilities.
f. Working capital to accounts receivable.
g. Sales, less returns and allowances, to accounts receivable.

The rated weight of the factor is computed as shown in the following example:

| Element | A Actual | B Standard | | Weight A/B |
|---|---|---|---|---|
| a | 2.80 | 3.00 | 1 | 93.3% |
| b | 1.75 | 3.06 | 1 | 57.2 |
| c | 2.08 | 1.85 | 1 | 112.4 |
| d | .665 | 1.08 | 1 | 61.6 |
| e | 1.80 | 3.20 | 1 | 56.3 |
| f | 2.00 | 1.60 | 1 | 125.0 |
| g | 6.11 | 5.50 | 1 | 111.1 |
| | | | 7 | ) 616.9 |
| Average | | | | 88.0% |
| Basic weight | | | | 1,700 |
| Rated weight | | | | 1,496 |

## PRODUCTION OR MERCHANDISING EFFICIENCY

Production efficiency as used herein refers to the degree of use made of capital invested in inventory and plant, and to relative cost levels. For mercantile enterprises this factor might be termed merchandising efficiency. It is evaluated by consideration of elements which consist of the following ratios:

a. Cost of goods manufactured to raw and in process inventory, or cost of goods sold to total inventory.
b. Cost of goods manufactured or sold to fixed assets.
c. Sales to cost of goods sold.

It might be thought that distortion of the rated weight of this factor would occur should an enterprise not own a substantial portion of its facilities. However, management might determine that it is more economical to rent than to own, and it should be given credit accordingly. Should a management be wrong and out of consonance with standard practice of its line of business, many other elements and factors would be affected so that the final rating of the management would not be distorted. It should be borne in mind that management is being rated upon the basis of the use it makes of the capital and facilities at its disposal.

The rated weight of this factor is computed as shown in the following example:

| Element | A Actual | B Standard | | Weight A/B |
|---|---|---|---|---|
| a | 5.64 | 6.34 | 1 | 89.0% |
| b | 4.71 | 3.90 | 1 | 120.8 |
| c | 1.47 | 1.49 | 1 | 98.6 |
| | | | 3 | ) 308.4 |
| Average | | | | 102.8 |
| Basic weight | | | | 2,000 |
| Rated weight | | | | 2,056 |

## SALES VIGOR

Sales vigor is evaluated by consideration of the relationship of sales volume to investment, and of the adequacy of prices obtained, as reflected by the following ratios:

a. Sales to tangible net worth.
b. Sales to working capital.
c. Sales to inventory.
d. Sales to cost of goods sold.

The rated weight of the factor is computed as shown in the following example:

| Element | A Actual | B Standard | | Weight A/B |
|---|---|---|---|---|
| a | 2 | 3 | 1 | 66.7% |
| b | 2.5 | 2.5 | 1 | 100.0 |
| c | 5 | 6 | 1 | 83.3 |
| d | 1.4 | 1.5 | (x3) | 280.0 |
| | | | 6 | ) 530.0 |
| Average | | | | 88.3% |
| Basic weight | | | | 2,200 |
| Rated weight | | | | 1,943 |

The evaluation of the management of the hypothetical enterprise used in the foregoing illustrations would be as follows:

| | |
|---|---|
| Corporate structure | 770 |
| Earnings and growth | 1,040 |
| Fairness to stockholders | 870 |
| Research and development | 1,012 |
| Fiscal policies | 1,496 |
| Production efficiency | 2,056 |
| Sales vigor | 1,943 |
| | 9,187 |

or 91.87% of standard. Should information for evaluation of research and development be unavailable, that factor might be eliminated, and the results in the preceding example would be:

| | |
|---|---|
| Total score | 8,175 |
| Standard score | 8,900 |
| | = 91.85% |

## EXCESS OF 100%

Some managements would, of course, receive and deserve ratings in excess of 100% of standard, just as production is rated at times in excess of 100% of standard or normal capacity. All standards should be set upon the same basis, such as upper quartile averages, so that all management ratings would be comparable.


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# Scientific Management and Human Relations

By JOHN T. DIEBOLD

Assistant to the Senior Partner
Griffenhagen & Associates

*A definite appeal for reconsideration and retrospection of scientific management as expounded by Frederick W. Taylor, the creator of the movement to impart excellence to management by viewing it as an art based on scientific principles.*

THE SCIENTIFIC, or Frederick Taylor, school of management is in bad repute these days. The principles and rules which earlier in the century marked the beginning of the management movement today appear to many, in the light of our present knowledge of human relations, as a hopelessly inadequate guide to organization and management. The situation is in fact such that I think it little more than a clarifying exaggeration to say that scientific management is at best beginning to be excused as a period-piece—a product of an age when engineering and physical science were the alpha and omega of industrial achievement, and when the profession of management was in its infancy. At worst it is now represented as a system which invites the most dreadful form of machine society —complete with humans (looking rather like Chaplin) who try desperately to keep up with the machinery but inevitably fall in the gears.

All this is not entirely surprising. Scientific management has many serious faults, both theoretical and practical. But I believe that when one overcomes the present prejudice that would have us abandon serious study of Taylorism, one can find much in Taylor's principles and in the history of their operation which can be of use today. Our present knowledge of human relations should in fact be able to help us in using much of scientific management very effectively. I think that one is quite likely to end such a study with the feeling that in our determination to rid ourselves of the murky waters that surround the first quarter century of the management movement that we have perhaps thrown a baby out with the bath, and that the child is really quite a worthwhile addition to the family of management.

## THE REASON FOR TROUBLE

Discontent with Taylor's system has been widespread on both the theoretical and operational levels. Frederick Taylor's emphasis upon the individual laborer directed attention away from the informal group relations of workers which are today regarded as the key to the understanding of organization. Thus management theoreticians find serious fault with the very roots of his system. But this is more in the nature of rationalization for the fall of scientific management did not begin on the theoretical level. The most widespread dissatisfaction with scientific management has come from another and more easily discernible source—the repeated and often spectacular failures in actual practice of innovations widely heralded as scientific management. In point of fact, however, when one looks more closely into the causes of these failures one finds a surprising phenomena. The failures occur almost constantly in the area of labor relations, and in case after case one finds that the tools which Taylor fashioned, tools such as time study, are being used quite apart from, and without any understanding of, Taylor's broader concepts. And although they are merely tools dismembered from the philosophy which is necessary to guide them in proper use, they are nevertheless labeled scientific management. There seems good reason to believe that confusion of mechanisms with substance—this use of Taylor's tools quite contrary to Taylor's philosophy—has caused scientific management to fall into as much disfavor as it has. For the countless cases of unfair and unwise use of Taylor's tools that have been labeled scientific management have blackened the name of a body of management prin-

ciples which actually appears to have been given very little chance to demonstrate its effectiveness in practice at any time since the death of Frederick Taylor himself.

But why has this state of affairs persisted? Why have Taylor's concepts not been tried? Again we need not look far for the answer. On the operating level of practical management, labor relations is too dangerous an area to take many chances, and very few failures are needed to undo even the fairest reputation. Each generation of managers is less inclined than the former to toy with scientific management, for the name itself, if it can be attached to management innovations, can cause labor trouble. On the theoretical level the weakness in Taylor's approach, the lack of attention to the role of the informal group, has shunted many away from serious consideration of scientific management. For as in the case of any new insight, preoccupation with the new concept pushes all else into the background for a time —even that which although not enlightened with the new knowledge could contribute to it. And a generation fascinated by the discovery of the importance of informal groups sees little rewarding in the study of earlier efforts which centered on the individual. Indeed, the management impact of these new realizations has been such that it is now rather like being in the right club to belong to the human relations movement, and all too frequently the specialized vocabulary that has arisen is mistaken for substance, and those who do not use the proper words are deemed not to possess the understanding and insight into human relations for which the words, as symbols, stand. Scientific management is thus thoroughly discredited, both on the theoretical and on the operating, or practical, level.

## TAYLOR'S APPLICATION

Yet we rarely stop to ask just why Frederick Taylor's system did work when applied by Taylor—for work it did, and very well indeed. Or if we do bother to ask we are quick to write it off as a product of an age when workers were very different people than they are today, and when one did not have to consider them as individuals. But can we really brush it off so lightly? Certainly the changes in labor outlook during the past fifty years are obvious, indeed they are *the* fact which we see, and it is thus easy to pass off with a shrug any question as to why Taylor's system was successful. But for all its obviousness, is this the real answer? Are people really that different? Or is there something in Taylor's personal use of his principles and rules from which we can still learn? Is it not possible that for all his stress of the individual rather than the group, that in his actual dealings with people in the use of his system, there is something of value for us to recover?

Certainly scientific management has been given a black name by many ill planned, and even more shabbily executed time studies and schemes for compensation. Labor has often borne the brunt of these "scientific attempts at deception" and understandably balks at any further experiments which use the same tools or jargon. "After the workman has had the price per piece of work he is doing lowered two or three times as a result of his having worked harder and increased his output, he is likely entirely to lose sight of his employer's side of the case and become imbued with a grim determination to have no more cuts." But does the unfair or unwise abuse of a system mean that the system is unworkable? I think not.

## INSIGHT INTO HUMANS

I have no intention of starting a back to Taylor movement. What I hope to do is merely to say that which those who knew Taylor, and those who have worked carefully and honestly with his tools, will feel it needless to say—that Frederick Taylor had a very high level of insight into the human values and interrelations in industrial organizations as well as a keen, indeed brilliant grasp of mechanical methods. Yet I think that this is a fact which is today so often overlooked that a note such as this is needed to recall it all to mind. It is my belief that to a great extent Taylor and his colleagues have been blamed for the bad results that others have obtained by using the tools of scientific management without an adequate understanding of the principles of the Taylor approach. Taylor foresaw that this would happen, and his warning reveals much of his understanding of human nature. "The mechanism of management must not be mistaken for its essence, or underlying philosophy. Precisely the same mechanism will in one case produce disastrous results and in another the most beneficial. The same mechanism which will produce the finest results when made to serve the underlying principles of scientific management, will lead to failure and disaster if accompanied by the wrong spirit in those who are using it." In exploring this phenomena a bit, one begins to understand why the record of scientific management has been so spotty —why it has worked so well for Taylor and some of his colleagues, but why it has since caused so much strife, or simply seemed so very inadequate as a system of management.

## THERE IS A BABY IN THE WASH

I think that in looking into what it was that Frederick Taylor meant by scientific management, rather than what we today so readily assume to be scientific management, that we learn that there is a baby in the wash after all—that scientific management for Frederick Taylor consisted of much more than time study. And I think that we will find that there is still much of great usefulness in scientific management which has heretofore been neglected, providing only that we can overcome the prejudice which arises whenever the words "scientific management" are spoken.

Taylor once quoted a very interesting example of the dire effects that can result from the bland assumption that the tools of scientific management are the essence of the system. I think that it is worth relating here, for not only is it typical of what has so often happened, but in the telling of it Taylor reveals much of his own philosophy. "The men who had charge of the work did not take the time and trouble required to train functional foremen, or teachers, who were fitted gradually to lead and educate the workmen. They attempted, through the old-style foremen, armed with his new weapon (accurate time study) to drive the workmen, against their wishes, and without much increase in pay, to work much harder, instead of gradually teaching and leading them toward new methods, and convincing them through object lessons that task management (scientific management) means for them somewhat harder work, but also far greater prosperity. The result of all this disregard of fundamental principles was a series of strikes, followed by the down-

fall of the men who attempted to make the change, and by a return to conditions throughout the establishment far worse than those which existed before the effort was made."

## THE ROAD AHEAD

Perhaps the greatest misconception which we have about scientific management is that the system was completely mechanical, that it consisted entirely of time study—the timing of a job, the restructuring of it, and even the redesign of the tools. Now, although it is quite true that this was a very important part of Taylor's system, scientific management by no means stopped here. Frederick Taylor refused to accept the use of traditional tools in traditional ways. He and his colleagues spent years in research, examining the job, determining what was to be accomplished, and then designing tools and methods to accomplish the task — all based on carefully assembled data on the physical characteristics and capacities of both humans and materials. But this was a starting point for scientific management, not the end of the job. Taylor was not so obsessed with the tools he created that he felt them to be the center of his system. He was thoroughly cognizant of the central role which worker attitude plays. While listing reasons why industrial endeavors do not produce the maximum product which theoretically could be expected Taylor assigned first place to, "the fallacy, which has from time immemorial been almost universal among workmen, that a material increase in the output of each man or each machine in the trade would result in the end in throwing a large number of men out of work." Further reasons were, defective systems of management, and rule of thumb methods—the things for which he is remembered. But the first reason clearly indicates a realization of precisely those factors which scientific management is criticized for having neglected. But if this is so, why has scientific management acquired a reputation which seems to invite just such criticism?

The answer would seem to be that mere realization of the importance of worker attitude is not enough, that although Taylor recognized the importance of this factor he did not form his system in such a way as to place effective emphasis upon it. This perhaps explains the ease with which those who have tried to apply the rules laid down by Taylor have become fascinated by the tools and have neglected what must have seemed very ordinary — the primary attention that must be given to the people who use the tools. But in a way the temper of the times was partly to blame, for stop watches and measuring sticks are easily identified as "scientific", and the industry of the day was thoroughly devoted to science as the newest path of promise. Unless the human side of scientific management could have been dressed in very exotic clothes it would have been hard to have had its importance recognized. Unfortunately Taylor did something less than this. By placing emphasis upon the individual he not only delegated the human factors to a back seat—for allowing freedom for the individual to develop to the extent of his potentialities was after all the accepted philosophy, if not the practice, of the day—but he introduced a real weakness into his system.

## INFORMAL RELATIONS

"In dealing with workmen under this type of management, it is an inflexible rule to talk to and deal with only one man at a time, since each workman has his own special abilities and limitations, and since we are not dealing with men in masses, but are trying to develop each individual man to his highest state of efficiency and prosperity." If one reads such a statement today he is very unlikely to attribute it to Frederick Taylor. Taylor is simply not remembered for such statements. In fact, if one is accustomed to working within the matrix of group relations such emphasis upon the individual might well be regarded as perhaps the next step in human relations work. But if one does not think in terms of informal relations of people on a job, such stress of the importance of the individual can mean a very different thing. It can then take attention away from these informal relations and even delay the realization of their importance. This unfortunately seems to be what scientific management has done. And I feel that here we hit upon the central weakness of Taylor's entire conceptual scheme.

Yet even here I wonder if we do not underestimate Frederick Taylor. For I think that in his writings and in the records of his actions there is much to indicate that he was really a first-rate practitioner of human relations. I think that this is clearly shown in his comments on the importance of the time factor in installing his innovations. "The physical changes which are needed, the actual time study which has to be made, the standardization of all implements connected with the work, the necessity for individually studying each machine and placing it in perfect order, all take time, but the faster these elements of the work are studied and improved, the better for the undertaking. On the other hand, the really great problem involved in a change from the management of 'initiative and incentive' to scientific management consists in a complete revolution in the mental attitude and habits of those engaged in the management as well as of the workmen. And this change can be brought about only gradually and through the presentation of many object-lessons to the workmen, which together with the teaching which he receives, thoroughly convince him of the superiority of the new over the old way of doing the work. This change in the mental attitude of the workman imperatively demands time. It is impossible to hurry it beyond a certain speed. The writer has over and over again warned those who contemplated making this change that it was a matter, even in a simple establishment, of from two to three years, and that in some cases it requires from four to five years." I think that in this passage Frederick Taylor displays a level of understanding of human relations for which he is rarely given credit.

We have, since Taylor's day, learned much of human understanding and organization. Can this not provide the understanding which has been lacking in so many of the abortive attempts at using scientific management? "Scientific management . . . has for its very foundations the firm conviction that . . . prosperity for the employer cannot exist through a long term of years unless it is accompanied by prosperity for the employee, and vice versa . . ." Have not the great advances of recent years in understanding and human relations placed us in a position to now use more effectively the concepts and tools of scientific management?

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All quotations are from *The Principles of Scientific Management* by Frederick Winslow Taylor; Harper & Brothers; New York (1916).

# Let's Make Personnel — PERSONAL

By J. HARVEY DALY

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***Personnel means people. People mean human relations. Human relations mean human problems, and the personnel director must use all his tact, sympathy and experience to bear on the solution of this human equation.***

DURING THE LAST twenty years, Labor has come into its own. The dignity of the working man has at last been recognized, and, with this recognition, has come an attempt on the part of management to consider the employee both as a human being and as an individual with feelings and problems of his own.

Every large organization today can boast a personnel department and (or) a personnel director whose job it is to handle the *personal* problems of the employees. That's as it should be, BUT is the department doing an effective job? Is the personnel director honestly equipped by disposition, training and experience to handle the hundreds of human problems that are daily poured out across his desk?

To many people, including a large number of top-flight executives, the personnel director is the fellow who does the hiring and firing. In some firms he also handles group insurance, job evaluation or merit rating, but, actually, these are the least of his functions.

## RIGHT DOWN THE LINE

Personnel means people. People mean human relations. Human relations mean human problems, and the personnel director is the man who brings all his tact, sympathy and experience to bear on the solution of this human equation. Obviously, then, this is no job for the amateur, but calls for a personally qualified, specially trained expert. There is no place in the field for the untrained relatives of the company president—no matter how engaging their personality. Personnel needs the professional man, but what does the professional man need for personnel?

First of all, he should be equipped by nature with a sincere interest in human beings and a heartfelt desire to be of service to his fellow man. Besides being kind, patient and even-tempered, he must have the capacity for being fair and honest in all his dealings and must possess abundant understanding of everyday business and social life. What is more, his natural alertness and mental agility, obvious prerequisites, must be greatly sharpened by special training and practical experience.

What kind of training? Unfortunately, there is no pre-packaged curriculum for turning out a personnel director. Colleges offer a number of specific courses in personnel, which are often invaluable for special techniques and short cuts to routine tasks, but the courses which will do the most to widen the horizons of the prospective personnel director, giving him the knowledge, understanding, sympathy and courage that he needs, will often be far removed from the business curricula.

It is my belief, and I speak from experience, that courses in sociology — a study of man's relation to society, ethics, world history, history of the labor movement, modern problems of labor and management, and individual case studies will do more to help a man understand employees and their problems than all the courses in job evaluation or tests and measurements can ever accomplish.

A knowledge of practical psychology is equally imperative. The personnel director who has experienced—actually or vicariously—every kind of normal or abnormal psychology is equipped to recognize and help all types of employees who come daily with their real or imagined problems.

With the above preparation and the proper personal qualifications, he knows human nature, he understands human problems, no situation is completely new to him and he is shocked at nothing. Such a background increases his own self-confidence and gives him a measure of control over each new problem—factors which make employees put their faith in him and his judgment. "He's fair," they say, "he's honest, he takes an interest in you; he'll do what he can for you—and, you can tell him *anything*."

## NEED FOR EXPERIENCE

So much for personal qualifications and special training—now, what about experience? Academic training is very valuable, but not equal to practical experience. Book training and case studies *prepare* for a good job performance—experience improves and assures it.

Whereas personal qualifications can supply the necessary materials and proper training establish the right foundation, experience is the indispensable element that welds the whole structure together.

A personnel director is constantly subjected to terrific pressure — pressure from above, pressure from below, pressure from outside sources—and, the best proving ground for developing the courage and stamina necessary to do the job *well*—despite the pressures—is experience.

The inexperienced director, eager to make good but lacking the self-confidence that comes from doing, is often tempted to adopt the vacillating policy

of trying to please everybody — with completely disastrous results.

Experience, however, soon brings home the fact that every employee in the organization is an individual human being, entitled by his very nature to certain undeniable rights and privileges. Experience points out the personnel director's privilege and responsibility in protecting those rights and challenges him constantly to champion them. Experience also teaches him that the solving of employee personal problems means the solution of company personnel problems, and it is to be hoped that experience will convince him that the best formula for the solution of both is to make personnel personal.

## REMEMBER THE BOSS, TOO

One very important point, however, must be made clear. The personnel director should never forget the fact that his interest in the human rights of the employee must be always tempered with an earnest regard for his employer's interests. It is not always easy to protect the employee's cause, yet not jeopardize that of the employer . . . but, that is a primary obligation in personnel.

Here are two actual cases which show the kind of situation that often arises in personnel and seemingly puts the personnel director between Scylla and Charybdis:

Several supervisors had reported on the physical incapacity and general inadequacy of one youthful employee who was accordingly sent to the personnel office for dismissal. The boy arrived looking tired and apprehensive; he kept clutching and twisting a much-fingered envelope which he mutely thrust at the director at the first opportunity. This is what it contained:

Dear Mr. ————:

I hope you do not lay my son off. He is my only support. I am sick and not able to work. William had infantile paralysis when he was small. He may be a little slow but he tries hard I know. My William does not drink. On account of being hurt. He has not made enough to pay my rent this month. If William can not make good as a receiving clerk I will appreciate it so much if you will give him something else.

Thanking you in advance I remain

Sincerely
Mrs. ————

How should the director proceed? Expediency demands the employee's dismissal; clemency, his retention. The personnel director is pledged to protect both labor and management, but, when the interests of employer and employee seem to be diametrically opposed, is there a fair way to satisfy both?

The personnel director involved, who is a staunch advocate of making personnel personal, talked to the man in friendly, fatherly fashion until he saw that he was thoroughly at ease. Then, having previously reviewed the man's record, the personnel director praised him for his good qualities — honesty, effort, conscientiousness, loyalty; questioned him about his mechanical aptitudes; pointed out the unhappiness in store for a "round peg in a square hole"; asked the man if he would be satisfied to work in a garage, where he could indulge his love of mechanics and taste the satisfaction that comes with success. Getting an affirmative answer, he immediately established contact with a nearby garage which he knew had an opportunity for a man like William, and, in a matter of half an hour, William was leaving the personnel office, no longer downcast, but filled with anticipation for a new job that would give him the chance he'd always wanted but had never quite been able to attain.

Now, nearly four years later, William is well satisfied with his job as a mechanic. He is earning more than he would have been capable of attaining in the other job, and both he and his mother, with their intense loyalty and gratitude to his former employer, have become a strong force in promoting the good will of that organization in their neighborhood and among their friends. The personnel director feels well satisfied that the personal approach has paid off.

The second case also concerns a young employee. Two days after the boy was hired, he was indicted by the grand jury for burglary. The personnel director knew the boy had fine qualities; he also knew that he had been led into the escapades by a sort of hero worship for the ringleader of the group, an outstanding local athlete. More than anything else, he knew that the boy stood at the crossroads of his life, and that the treatment he received in the crisis could either make or break him. He sent for the boy.

When the employee failed to appear, the director called his home. Queried about his failure to report, the boy's answer, "Oh, I knew what it was all about", elicited the following from the director, "Maybe you know what it's all about, John, but you don't know all about me. I want to help you."

Bonding company restrictions prevented the boy's retention by his present firm, but again the personnel director put his contacts to work. Calling a personal friend who ran a small but lucrative business, he acquainted him with the boy's story, assured the man of the latter's potentiality for success, and was able to offer the youthful employee a new job and a real opportunity when he presented himself for an interview a few minutes later.

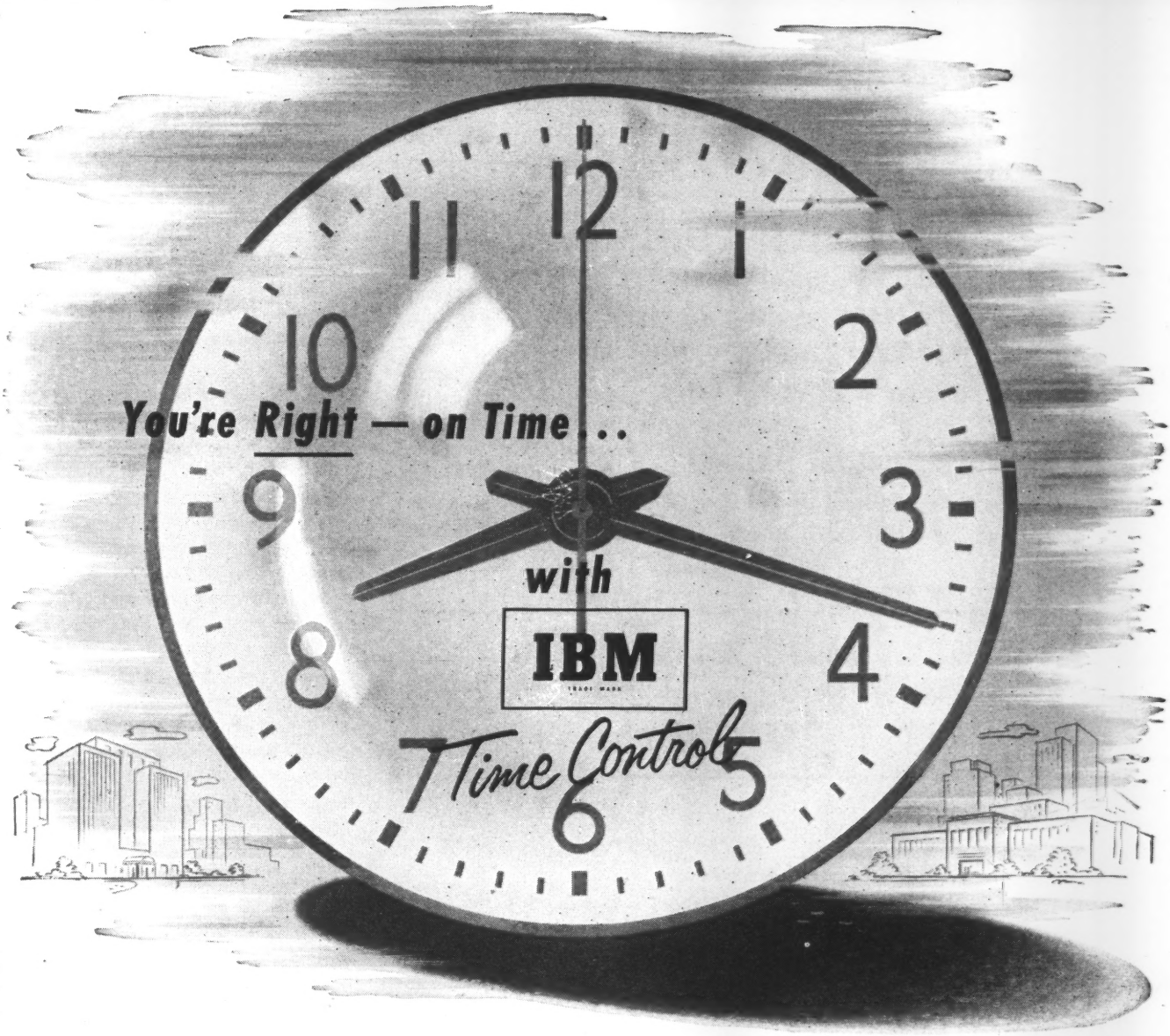
Cautioning the boy to live up to the good stuff that was in him, the personnel director was heartened by the response:

"You don't have to worry about me, Mr. ————, I'll never forget what you've done, and I'll never let you down."

So far, in over two years, he never has—a fact which has reaffirmed one personnel director's belief that it pays to make personnel personal.

## CONCLUSION

Personnel will always mean people. People will always mean human relations. Human relations will always be concerned with human problems, and the man who elects personnel as his life work must be equipped by nature with the human qualities which make the job a satisfaction and a pleasure. He must have special training in the humanities to prepare him for the proper execution of his duties, and he must be willing to spend several years as an apprentice, acquiring the all-important practical experience necessary to the job before he can expect to be capable of directing the destinies of his fellow human beings. Given the above ingredients, he is bound to succeed if he will give unstintingly of himself in his all-out fight to make personnel — *personal!*

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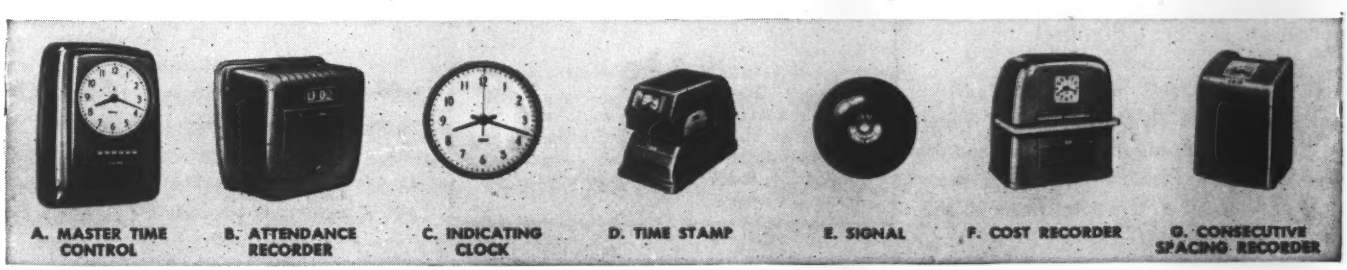

# How Effective Are Our Industrial Tools?

By MARK D'ARCANGELO

Assistant to the Training Director, U. S. Navy Field Branch, Bureau of Supplies and Engineering

and

MELVIN MAJESTY

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***Jobs were once an end in and of themselves; today they are only a means to an end. The human being must again come first — before machines.***

MAN'S RELATIONSHIPS with himself, with other men, and with the forces that constantly tend to erase him as the dominating figure of the world have, in the last one-hundred and fifty years, been the subject of much critical thought. In 1858, Charles Darwin promulgated his theory of evolution, a scientific discussion of the origin and survival of man, which can be boiled down to what we in America have come to term as "rugged individualism," or "survival of the fittest." This gladiatorial philosophy was later enhanced by Thomas Malthus' population theory, an economic approach to the problem of man's survival which also justified the low wage that prevailed in Western Europe during the nineteenth century. Forty years later, in 1893, Thomas Huxley, a lecturer in biology at Oxford, England, modified the Darwinian and Malthusian concepts by bringing into their sphere the idea of cooperation among individuals competing in the capitalistic nations. This theory did not meet with encouraging acceptance. Even in America the idea was received apathetically, although Lester Ward, the father of sociology, was in full agreement and wrote much in an effort to hasten the acceptance of Huxley's ideas.

By the turn of the century Darwin's philosophy prevailed in economic thinking. Great American industrialists such as the late John D. Rockefeller were saying that "the growth of a large business is merely a survival of the fittest." But regardless of the fact that this philosophy existed in the minds of American industrialists, the dynamic theory of cooperation was beginning to make its mark on society. But the prosperity of the 1920's almost obliterated this beginning. Economic complacency began to set in rapidly, destroying any semblance of cooperation in the American capitalistic economy. Nevertheless, during the 1930's the basic rationale of the administration in power favored the humanitarian theory, and through a "forced choice" method gave industrialists little or no alternative other than to agree that something more than pure competition existed in the make-up of an industrial democracy.

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## FEAR OF AGGRESSION

At the beginning of World War II, because of a fear of the results of world wide aggression, competitors were, of their own volition, striving to create harmonious relations among themselves and between themselves and labor. The aftermath of the war brought both the workers and the entrepreneurs of American industry into an era that was almost indefinable. Management was willingly making concessions, and in turn, labor's demands were increasing; the Taft-Hartley legislation was passed, ostensibly, to create industrial democracy; and lastly, management had become conscious of methods to increase productivity.

Now in the 1950's, we are entering into an era where human relations are becoming one of the important factors of industrial efficiency. The study of production can no longer be centered on the machines or the production process, but must take into account the individuals who make production possible. We have come to realize that there is no such thing as "across the board" solutions to our production problems. In dealing with people the human element cannot be ignored, and unless we realize this, we may very well find ourselves in the position of the March Hare who tried to repair the Mad Hatter's watch with butter. When his method did not work, he could only explain in bewilderment, "It was the best butter, the best butter, too."

## MEANS TO AN END

Through this course of time, how has the work situation changed? How has Man's attitude to his job been affected? Once, jobs were an end in and of themselves; today they are only a means to an end. In most cases jobs are no longer a source of positive satisfaction and so the worker must find his satisfaction after he leaves the work place. In order

to satisfy those needs which are not satisfied by his work, a man must have money. Thus a situation has come to exist in which a worker, if the employer makes it worth his while materially, will put off immediate satisfaction or undergo dissatisfaction on the job in the hope of obtaining more satisfaction *after his job is finished.* The job has become then only the *means* by which an individual achieves satisfaction. Instead of being the contented worker he once was, possessing a satisfying skill and working from sunrise to sunset, man is now the very discontented employee who works an eight-hour shift, or even less. The great technological innovations of the last twenty years have virtually relegated the human being to a secondary position in the industrial world. The ultimate means of production is no longer vested in him. On the contrary, it is the machine which is used to enhance the productive capacity of industry. Workers have resisted this by what we have come to term "the restriction of output" or "slowdowns". The reason does not lie so much in the fact that the worker thinks he can create a better work situation for himself by utilizing these methods, but rather that he envisions the structure of his job in such a way that he feels the mechanical devices are more important to the industrialist than he will ever be. His frustration in competition with mechanical devices and in an environment which demands certain things of him, drives him to demand certain things of his job such as money. Consequently, when the job makes certain demands which the individual considers undesirable, he must be compensated accordingly.

## DESIRE TO WORK

However, as jobs change, people change. When the demands made by the job are in accordance with the desires of the individual, there arises what can then be called the human will or desire to work. Thus it is that a worker will sacrifice a high wage scale if the job offers a positive source of satisfaction. Given a certain basic wage, he seeks other things beside money, but when these things are not forthcoming, money again becomes his primary goal. It was Leon Trotsky who said that when once the people have bread, then they can have poetry. Only when there is real security with regard to elementary things, can people begin to seek the concomitant aspects of society.

For purposes of illustration we might consider the position of the white collar worker today—clerical workers in particular. These individuals can certainly receive a greater salary in a factory job than they can in the clerical field, and yet the fact remains that despite this potential monetary gain, they prefer to stay in office work. Consequently, money alone cannot be what they are demanding from their jobs. The office position must certainly be meeting some other needs of the individual for which he sacrifices a larger pay check.

> The problems we deal with in worker rapport, machine efficiency, and employee incentive are preferral problems, not the basic ones. It was Thoreau who said, "Thousands are hacking at the branches of evil to one who strikes at the root."

The employer who offers his employees nothing more than a large pay check should have no reason to complain when he loses a top-notch worker to a competitor who offers a few cents an hour more. If a job means nothing more than money to the individual, then without large pay checks jobs are meaningless. The use of monetary incentive plans does not necessarily result in a production gain. Workers do not meet the productive level to which industry aspires for the sake of money per se. The worker is capable of meeting a higher level of production only if he is willing to do so, and his willingness is not necessarily attached to monetary remuneration. On the contrary, an all-out effort on the part of the worker can be realized only if he sees in his job certain compensations other than the weekly pay envelope. To be sure, the wage is necessary for sustenance in society, but let us not be oblivious to those values, other than monetary, which are basic requirements in the satisfaction of human needs. Our professional jobs are perhaps the best examples of "need satisfiers" outside the realm of salary aspects.

The lost feeling which the factory worker experiences when he considers himself nothing more than a mere slot machine into which dollars are placed weekly forces him to demand *more dollars.* When he finally does feel that he is more than a money receptacle, he will perhaps be content with a stable wage and thus capitalized on other job satisfactions. If, in the end, the employee still wants higher wages, then certainly limitations in the social aspect of his working conditions must be considered. But, if there are other things which appeal to his sense of values, he may relegate money to a secondary position. Therefore, it is extremely important to remember that *apart from the worker's set of values, jobs have no meaning.*

## WORKER INVESTMENT

However, values cannot be discussed in the light of their effects upon workers alone. Management has a value in the form of a definite investment in the worker. At present, manufacturing workers are capitalized at approximately $8,000 per individual,* which includes such things as physical plant facilities, personnel practices, incentives, fringe benefits, etc. Wages are another investment that industry has in its employees. Adding these two together and viewing the situation on a purely monetary scale, it can readily be seen that any loss in labor turnover is detrimental to the financial structure if continued for any length of time.

## TANGIBLE INVESTMENTS

The worth of an employee usually increases in direct proportion to the length of time he has been with the company, and the loss of a worker in whom there is a heavy investment can be compared with the loss of a piece of machinery that has not yet been fully depreciated. But perhaps it would be better to contrast the investment in a bushel of tomatoes. Both worker and the tomatoes are tangible investments; however, a bushel of tomatoes cannot be influenced to make better or more soup.

*The Handbook of Industrial Relations, Aspley and Whitmore Dartnell Corporation, 1948.

# SOCIETY NEWS

## S.A.M. SUPPLIES MAJORITY OF MSA TOP ADVISORS

DEPUTY DIRECTOR for Mutual Security Agency Richard M. Bissell announced on January 4 the appointment of 17 men and one woman to advise the Mutual Security Agency, successor to the Economic Cooperation Administration, on its European production assistance drive to keep Western Europe strong and free.

The group of eighteen of America's top experts in the fields of management engineering, labor, industrial relations and economics, are drawn from management and labor union posts, from industrial and management engineering firms and from universities. It includes several whose names are bywords in American industry as the authors of industrial plans and systems which promote both the efficiency and the standards of service of American business.

The drive to increase industry's output per man hour, with lower costs and higher wages, is regarded as MSA's number one specific job in Europe at this time in the general program of building and supporting the free world's defense potential, economic strength and the will to resist communism.

Under the chairmanship of John W. Nickerson of West Hartford, Conn., who is a private consultant on management engineering, the group will meet several times a year in Washington to provide their advice for the European productivity program. They may also be called upon to work on special problems and some may be asked to undertake special productivity missions to Europe. Nickerson was appointed consultant on the productivity program November 1 under ECA. He has been a private consultant on management engineering since 1949 and is a member of SAM, affiliated with the Hartford Chapter. A former director of the War Production Board's Management Consultant Division, he is a graduate of MIT and has held executive positions with Cheney Brothers, textile manufacturers of Manchester, Conn. for 27 years.

Deputy Chairman of the Advisory Group is Clinton S. Golden of Solebury, Pa., a lecturer on labor problems at the Harvard University Graduate School of Business Administration. Golden is a former member of SAM, under the firm membership of the Economic Cooperation Administration.

Other members of the experts' group who are members of SAM are:

Phil Carroll of Maplewood, New Jersey, professional industrial engineer and a consulting engineer for 30 years in 160 plants. Carroll, who was the winner of the Gilbreth Medal of SAM in 1950, has been a member of SAM for eleven years and served as National Treasurer of the Society for a period of time. He is affiliated with the Northern New Jersey Chapter.

Myron H. Clark, director of the Labor Management Institute of the University of Connecticut and management consultant with his own firm in Boston, Mass. has been a member of the Boston Chapter of SAM for fifteen years.

Mrs. Wallace Clark, president of Wallace Clark and Co., Inc. of New York City, consulting management engineers, has been a member of SAM for two years in the New York Chapter. She has spent twelve years abroad, has offices in Paris, London and Warsaw and has been engaged in domestic and international projects for several government departments.

R. Conrad Cooper, vice president for industrial engineering of the United States Steel Company has been a member of SAM for two years and is affiliated with the Pittsburgh Chapter.

Glenn L. Gardiner, vice president of Forstmann Woolen Co., Passaic, N. J. who is known as the father of TWI (Training Within Industry) and recognized as one of the leaders in industrial relations and personnel training in the United States. Gardiner, who received The Gilbreth Medal in 1942 from SAM and The Human Relations Award of the Society in 1951 has been a member of SAM for nine years. He is affiliated with the Northern New Jersey Chapter.

William Gomberg, director of management engineering, International Ladies Garment Workers Union (AFL); consultant to the United Automobile Workers (CIO), United Textile Workers (AFL) has been affiliated with the New York Chapter of SAM for six years.

Harold B. Maynard, president of the Methods Engineering Council of Pittsburgh; former president of the National Management Council for two years and deputy president of the International Committee on Scientific Management (CIOS), served as National President of SAM and has been a member for fourteen years, affiliated with the Pittsburgh Chapter. Maynard received the Gilbreth Medal of SAM in 1946.

### CHAPTER STANDINGS
### As of January 1, 1952

| MEMBERSHIP | | CHAPTER PERFORMANCE AWARD | |
|---|---|---|---|
| New York | 433 | Greensboro | 1647 |
| Philadelphia | 300 | Washington | 1610 |
| Chicago | 299 | Pittsburgh | 1427 |
| Cincinnati | 255 | Hudson Valley | 1319 |
| N. New Jersey | 248 | Allentown | 1270 |
| Cleveland | 240 | Milwaukee | 1134 |
| Washington | 231 | Trenton | 955 |
| Boston | 204 | Boston | 934 |
| Pittsburgh | 188 | New Brunswick | 884 |
| Detroit | 169 | N. New Jersey | 882 |
| Los Angeles | 133 | Philadelphia | 855 |
| Milwaukee | 124 | Chicago | 839 |
| Indianapolis | 107 | Indianapolis | 836 |
| San Francisco | 107 | Baltimore | 760 |
| New Brunswick | 106 | Detroit | 734 |
| Greensboro | 99 | Atlanta | 705 |
| Lancaster | 94 | Wilkes-Barre | 669 |
| Hudson Valley | 88 | New York | 666 |
| Dallas | 87 | Wilmington | 647 |
| New Haven | 85 | Central Pa. | 524 |
| Asheville | 79 | Cleveland | 498 |
| Baltimore | 77 | Lancaster | 461 |
| St. Louis | 64 | Worcester | 456 |
| Montreal | 61 | Montreal | 414 |
| Atlanta | 59 | Cincinnati | 399 |
| Dayton | 58 | St. Louis | 397 |
| Trenton | 58 | Dallas | 344 |
| Providence | 57 | Los Angeles | 281 |
| Bridgeport | 55 | San Francisco | 277 |
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| Worcester | 53 | Portland | 224 |
| Wilmington | 53 | Manchester | 207 |
| Central Pa. | 52 | Western Mass. | 202 |
| Hartford | 52 | New Orleans | 195 |
| Louisville | 51 | Birmingham | 152 |
| Allentown | 49 | Richmond | 151 |
| Knoxville | 48 | New Haven | 140 |
| Columbus | 45 | Bridgeport | 126 |
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| Manchester | 41 | Central New York | 104 |
| Baton Rouge | 38 | Knoxville | 103 |
| Portland | 35 | Asheville | 60 |
| Twin City | 34 | Stamford | 60 |
| Central New York | 33 | Providence | 52 |
| Western Mass. | 31 | Kansas City | 34 |
| Richmond | 28 | Twin City | 30 |
| Kansas City | 24 | Hartford | 16 |
| Nashville | 15 | Baton Rouge | 12 |
| Stamford | 12 | Nashville | — |

David B. Porter, Professor of Industrial Engineering at New York University received his basic training in scientific management from Henry Lawrence Gantt. He has been a member of SAM for fifteen years, affiliated with the New York Chapter and received the Gilbreth Medal in 1940.

Allen W. Rucker, president of The Eddy-Rucker-Nickels Company of Cambridge, Mass., management consultants, is the author of three well-known management books. He has been a member of SAM for several years with affiliation in the Boston Chapter.

Robert B. Wolf, consulting engineer of New Canaan, Conn., is one of the chief proponents of the value of non-financial incentives and former manager of the Pulp Division of the Weyerhaeuser Timber Co. of Washington. Wolf received The Taylor Key in 1946 from SAM. This award is one of the highest awards of the Society awarded annually for the outstanding contribution to the advancement of the art and science of management as conceived by Frederick W. Taylor.

The other members of the group who are not SAM members are David L. Cole, A. M. Lederer, Eli Oliver, Joseph Scanlon, Sumner H. Slichter, and Walter H. Wheeler, Jr.

This listing of impressive names bespeaks well of SAM. Out of the eighteen persons named on the MSA Advisory Group, nine are members of SAM. Four have received awards from SAM with Mr. Gardiner receiving two awards. Mr. Wolf received an SAM award in 1946. The Chairman of the Advisory Group is a member of SAM and the Deputy Chairman is a former member of the Society. The Society is proud of the recognition and work of these top experts and proud to claim them as members of the Society for Advancement of Management.

## CHAPTER VISITS BY EXECUTIVE DIRECTOR

Many SAM Chapters have shared in the services of the National Office through visits by the Society's Executive Director. Their gratitude and appreciation for his interest and work have been expressed in numerous comments and letters.

The Executive Director has visited new Chapters who did not have the experience of setting up their yearly programs in advance, helped work out their monthly meetings, round-tables, clinics, conferences and specialized short courses. He visited Chapters in trouble and helped them to improve their mailing list, showed them how to have better looking programs, ways and means of improving their membership, obtained speakers for them and encouraged them to put a specific person on their Emerson Trophy Report. He has also visited other Chapters to help them in the art of chapter organization, met with executive committees and helped plan membership drives within the Chapters.

He has been instrumental in sending Asheville, N. C., Charlotte, S. C., and Greenville-Spartanburg, S. C. off to a flying start in their Chapter organization as new S.A.M. Chapters.

The S.A.M. Chapters the Executive Director visited in the interest of this year's program were: Allentown, Wilkes-Barre, New Brunswick, Manchester, Richmond, Louisville, Providence, Chicago, Dayton, Trenton, Nashville, Birmingham, Louisville, St. Louis, Knoxville, Washington, New York and Philadelphia.

Other cities he visited for prospective Chapters were: Rochester, Buffalo, Denver, and Charleston, S. C.

**HOW THEY DID IT!**

**Meeting twice, the Time Study and Methods Program Committee, composed of co-chairmen A. J. Bergfeld and H. B. Maynard with F. W. Hornbruch, Jr., Paul J. MacCutcheon and Lawrence L. Parrish as members, has completed the selection of all topics and all speakers for the coming conference April 24-25, 1952.***

**This was accomplished with the cooperation, contributions and suggestions from thirty-three SAM Chapters who participated in building the program by proposing a wealth of material to choose from—a total of one hundred and fifty-one speakers. This selection enabled the Committee to build a program which has a nation wide coverage of outstanding speakers.**

**The program is an integrated one. The first part of the program is built upon the application of methods and techniques; the second part reports the latest important research in the field of time and methods study.**

**The National Office Staff is responsible for the details of programs, promotion, registration, and all other arrangements.**

***See the back cover of this issue of ADVANCED MANAGEMENT for the complete program.**

## N.Y.U. PROFESSOR TO CONDUCT ROUND TABLES IN GERMANY

Professor David B. Porter, a member of the New York Chapter of S.A.M., and acting chairman of the Department of Industrial and Management Engineering at New York University, departed recently for Germany where he will conduct "Directed Energy Round Tables" for the firm of Jerome Barnum Associates. Professor Porter will be on leave from the university for a period of one month in order to do the work under a special contract between Barnum and the Federal Republic of Germany under the sponsorship of the United States Government.

The round table sessions are part of a new adult education program being initiated in Europe and it is expected to help greatly in solving some of the present difficulties in the sensitive areas of Western Europe.

The German programs are being sponsored by leading management societies including RKW (Rationalisierungs Kuratorium der Deutschen Wirtschaft), REFA (Reichsausschuss fur Arbeitsstudien), the Berlin Chamber of Commerce, the Free University of Berlin and the Technische Akademie of Wuppertal.

## APPOINTED ADVISOR TO ISRAELI

Hy Fish, of the Chicago Chapter, and assistant director of Roosevelt College's Labor Education Division, has accepted a years' United Nations appointment on advisor to the Israeli Government on productivity in industry. He is being sent by the International Labor Office of the UN and will have headquarters in Tel Aviv.

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His job will be to help in the development and improvement of production methods to meet the needs of Israeli industry. Working with the nation's productivity center, he will help improve factory and job organization and will direct training programs to show workers and managers how they can increase output. The appointment follows a commendation from the American Embassy in Tel Aviv for similar work he did in Israel in the summer of 1950 under the auspices of the State Department.

### JANUARY S.A.M. CHAPTER ACTIVITIES

**The Central Pennsylvania Chapter** heard Miss Helen Berg, Vice President and Director of Sales of Her Majesty Underwear Company of New York speak on the topic of "Advertising as a Management Tool." Miss Berg, who is also the president of the Advertising Women of New York, Inc. spoke at the annual ladies night dinner meeting, co-sponsored by S.A.M. and The Women's Journalistic Society of the Penna. State College. She brought to light the fact that "advertising is a big business — broad and comprehensive. It's a business like any other business, it creates, it manufactures, it sells, it uses research, it has people to keep books." For the benefit of the ladies in the audience, Miss Berg spoke particularly of the problems in the retail field.

**The Manchester, N. H. Chapter** was informed by Dr. Carlos A. Efferson, Staff Training Director of Chicopee Manufacturing Company that "the fundamental desires of the employee and recognition of these desires is a must on the part of management." Dr. Efferson who spoke on the topic of "The Basis for Effective Management of Men" is the author of the book "Training Employees and Managers."

**The Knoxville Chapter** presented a round-table discussion on the subject of "Human Relations in Industry" with a case from a local industry openly discussed and presented. Dr. James M. Porter of the Industrial Psychology Department of the University of Tennessee and W. A. Chalkley of Rohm & Haas were the discussion leaders. The most pertinent point developed was the tremendous friction between the union and the non-union people.

**The Nashville Chapter** had as its speaker, Aubrey White, Chief Industrial Engineer of the Stockham Valve Company of Birmingham, Alabama. Mr. White whose topic was "Cost Reduction Through Work Simplification" brought out many interesting points relating to cost reduction.

**The Portland, Oregon Chapter** heard Howard Arnett, Assistant General Superintendent of Portland General Electric Company present a factual problem involving a large expenditure and how management moved to solve it. His topic title was "Would You Pay the Additional $250,000?"

## Cincinnati Presents Executives Workshop In Managerial Skills

THE CINCINNATI CHAPTER is presenting an Executives Workshop in Managerial Skills which will last over a period of five months and will bring some of the top names in management to that city. This project has back of it all of the development work, experience and planning of the National Training Laboratory in Group Development, plus two years of experimental work by the Cincinnati Chapter for which work the Cincinnati Chapter won the "Modern Industry" Award of $1,000 — which is now being applied to the expansion of this program.

The program is designed for the man who is the driving force in his business today and for those junior executives who will run the companies of tomorrow. It is an intensive training session to develop skills that will make more effective use of group action throughout any company. Because this program is so different in method and content from ordinary business or professional meetings, the Cincinnati Chapter is urging that teams of from two to four executives from each company in their area enroll to form a working nucleus so it will be easier for them to apply what they learned, in their companies.

The purposes of the program is to enable executives to spot manpower waste and eliminate waste resulting from failure to enlist group participation in solving problems; to develop executive skill in obtaining maximum benefits from group effort; and to help to develop improved and more practical methods of training men.

Registration is limited to S.A.M. members and the participation is, of necessity, limited to the sixty top executives who are most vitally interested in developing their manpower.

There will be five sessions, on the third Thursday of each month, January 17 through May 15. This actually makes for only three days (four half days and one full day) of serious thought, analysis and discussion.

This Workshop will be staffed and directed by the most able men in the United States and will include Dr. Alvin Zander, Program Director, Research Center for Group Dynamics of the University of Michigan, Dr. Douglas McGregor, President of Antioch College, Dr. Floyd Mann, Study Director, Survey Research Center of the Institute for Social Research at the University of Michigan, Dr. John P. French, Program Director of the Research Center for Group Dynamics, University of Michigan, and Dr. Leland Bradford, Director of the National Training Laboratory in Group Development. The planning and co-ordinating consultant for all sessions is Dr. Gordon L. Lippitt, Training Consultant of the National Training Laboratory in Group Development.

The Chairman of the Planning Committee of the Executives Workshop in Managerial Skills is H. M. Hopkins, Works Manager of The Tool Steel Gear & Pinion Company.

Never before in Cincinnati has so much been offered at such an unbelievably low cost. The most outstanding feature of this type of project is that top executives get the advantages of the Workshop Training and still carry on their own managerial responsibilities in their companies.

# THE MANAGEMENT BOOKSHELF

***Advertising Media*** by ED BRENNEN, McGraw Hill Book Company, 284 pages, $6.00.

IN 1880 THE TOTAL ADVERTISING bill in the United States was estimated to be $200,000,000. In 1929 it had moved up to $2,590,000,000. The 1951 estimate as released by Printers' Ink, January 11, 1952, amounted to $6,548,200,000.

Mr. Brennan in his new book "Advertising Media" has given the buyer of advertising a long delayed pat on the back. Buyers of space in publications, every category, outdoor advertising, radio, television, direct mail, annual catalogs, directories and transportation advertising, will welcome this business-like document. So also will students, who are now majoring in business courses, economics, marketing and advertising.

Whether a client of an advertising agency is spending a modest $20,000 for some regional spot advertising or buying most of the best location in our 48 states for a poster campaign, or spending a million on television, some one individual, commonly called a space or time buyer, must plow through thousands of statistics, and often listen to as many as one hundred representatives tell the story of their own media, before he makes up his final estimates.

As pointed out by Mr. Brennen, the early days of space buying were on a barter basis. Circulations were not sworn to. The sharpest buyer bought at the lowest price.

Today the buying of space or time in our agencies is directed by men who are not always given the credit which is their due. Students who have determined to enter the world of advertising might change their decision to be writers, salesmen or account executives if they digested this book. It points in just one direction. Media buyers are going to be more important in the coming years. Here is a highly specialized business that is not over-crowded. It must be added, however, that space and time buyers as well as those who buy printing,—catalogs, counter displays, etc., are not yet paid salaries commensurate with their contribution to the overall advertising program of a company.

This is a book that one can read swiftly, but one doesn't, for the simple reason that Mr. Brennan has not only done a remarkable research job but has also literally poured into every page information that must be read slowly, then earmarked on the page for future reference and guidance.

The student and the professional will want this up to the minute document. It's easily the best book yet off the press on one of the most neglected individuals in the advertising business, the man who last year O.K.'d most of the more than 6 billion-dollar advertising bill of this country.

FRANK E. FEHLMAN
Advertising Counsel
New York City

***Production and Inventory Control*** by WILLIAM E. RITCHIE, The Ronald Press Company, New York, 1951, 278 pages.

SEVERAL TEXTS HAVE APPEARED within the past few years in the general field of production control. Professor Ritchie has been successful in finding a new approach to the subject. This is a book that appears to be teachable; yet, it has much for the people engaged in production and inventory control. The author's purpose was to avoid any lengthy discussions of the many engineering and technical activities which are closely related and complementary to production control, and to concentrate on the systems of control. He has not, however, avoided discussion of the applicable basic factors in the control of production —it is not a case book as such. While the author states in his preface that he does not believe in a principles approach to a subject, the first six chapters of his book may be considered a study of the basic factors involved in production and inventory control. It is possible to evolve certain principles from the materials presented in them.

The first chapter gives definitions for certain basic terms and indicates the pattern that will be followed in the remainder of the book. The second chapter contains an evaluation of certain factors common to all production operations which affect any system of production and inventory control. Among these are the market served, the process used, the complexity of the product, the amount of working capital, the plant personnel, and the organization. The effect of each of the factors upon control systems is briefly analyzed.

Chapter Three examines the relative positions of production control, inventory control and purchasing in certain specific types of industries, the vehicles and specific organization types for the production control function, the organization for inventory control, and the problems of multi-plant operation. Chapter Four contains an analysis of the job of planning and forecasting. The factors involved are slighted, but there is a good discussion of the methodology of forecasting. Similarly, in the section on production planning, attention is focused on the methods or steps in planning. Some attempt is made to indicate the possibilities of organization for planning.

Chapter Five has some very good illustrations of typical records and forms for inventory control to supplement the discussion of the function. Three general methods of control are indicated, followed by an extended discussion of the mechanics of control. Some attention is given to certain patented devices or systems of control: McBee Keysort, the Productrol, Graph-A-Matic indicators, and I.B.M. tabulating cards.

Chapter Six, "Production Control: Mechanics," would probably be considered the heart of a principles book on this subject. The functions of production control, identified by the author as

routing, loading and scheduling, dispatching, and follow-up, are explained. Each is discussed in a rather general fashion, with some of the techniques or devices used to assist in the performance of the function indicated. The familiar extended discussion of the Gantt chart and Taylor hook board is missing. In part, modern adaptations of the devices are substituted, supported by one illustration on the Gantt chart.

In Chapter Seven, "Production Control: Systems," twelve systems of control are described, with a fine summary of the noteworthy features of each. The basic points of weakness or potential dangers of the system are also cited at this point. This is the core of the book. It is the feature setting it apart from other texts in this area.

The last chapter discusses some of the common problems of system installation and administration of control systems. Certain criteria for the evaluation of a system are presented. These include the following ratios: planning employees to total company employees, planning department cost to direct labor cost, orders delivered on time to total orders, and others.

Two disappointments in the book may be noted. One is the lack of a bibliography, a most useful appendix to any text in a specialized field. The other is the failure to recognize the division of manufacturing into certain basic types: continuous, semi-continuous, and intermittent. The discussion of the mechanics of production control and that of inventory control might have been profitably anchored on a distinction between these three types. It is probable, for example, that routing becomes a function of plant layout in a continuous manufacturing company. This virtually eliminates the need for a route sheet just as the travel ticket tends to be eliminated by the installation of conveyors, thus routinizing the dispatching function.

In summary, the book strikes a good balance between a description book and a case book. It is well written, easy to read. It would seem to offer something for the practitioner as well as the instructor.

JAMES H. HEALEY
Assistant Professor of Management
The Ohio State University
Columbus, Ohio


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58. **Human Relations in Industry: A Challenge for Free Enterprise, "Industrial Relations and the Social Psychologist."** By Dr. Douglas McGregor, President, Antioch College.
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72. **Make it Informative!,** by Dr. Paul R. Beall, Director, Information Division, Research and Development Board, Department of Defense, Washington, D.C.

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